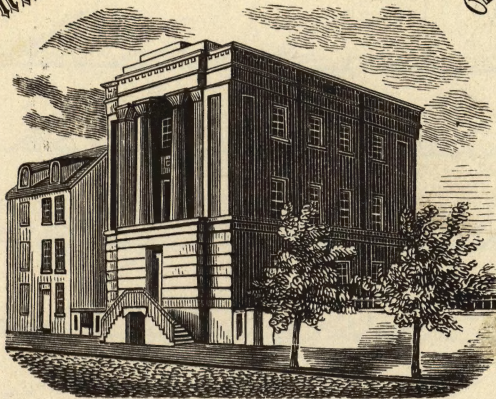


AN  
ESSAY  
ON  
**DIPHTHERIA**

RESPECTFULLY SUBMITTED TO THE FACULTY

*of the*

*Homoeopathic Medical College of Pennsylvania,*



FOR

The Degree of Doctor of Medicine

BY

*Charles A. Chamberlin, Lyndon, Nt.*

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# Diphtheria.

This disease was first described, and called Diphtherite, by M. Bretonneau, of Tours, in 1826. It has been known as an epidemic disease for the last three centuries, although not recognized by this term. The terms that have been used at different periods to designate the disease are. *Morbus Egyptianus*, *Morbus Suffocans*, *Garrotillo*, *Angina Suffocativa*, *Gula Morbus*, *Epidemicus Strangulatorius*, *Ulcus Syriacus*, *Putrid Sore Throat*, *Sore Throat*, *Distemper*, *Pseudo Membranous Pharyngitis*, *Black Tongue*, and *Diphtheria* of the nineteenth



century. According to writers, this disease prevailed in Holland in 1337 and 1557, also some parts of France in 1530; Andalusia and other parts of Spain in 1550 and 1551. It prevailed in Sicily, Italy and Spain in the sixteenth, and seventeenth centuries. It visited England, France, Holland, Sweden, Germany, and North America about the middle of the last century, and almost if not entirely disappeared until the first quarter of the present century. For the last few years it has prevailed epidemically in Great Britain and nearly all parts of the United States. Writers have divided the disease into several varieties.



Dr. Madden of England in the British  
Journal of Homoeopathy makes five divisions.  
Dr. Duke of Pittsburg classifies his cases  
into six varieties. I think as far as  
my observation goes that there are three  
distinct types of the affection, viz.

The Simple, Croupous and Malignant.

In the simple form there are but few  
prodromic symptoms, sometimes none  
at all, but is usually preceded by a  
slight malaise for a few days before  
the throat becomes sore; sometimes drow-  
siness, and chilliness, occasionally accom-  
panied by shivering, followed by febrile  
reaction. Sometimes pains in the limbs,



and head; and less frequently nausea and vomiting. More commonly the earliest complaint is of slight stiffness of the neck, soreness and a prickling sensation in the fauces. On examination the glands at the angles of the lower jaw are almost always found to be slightly swollen and tender to the touch.

Internally, one or both tonsils are found to be swollen, and usually reddened and inflamed, but may be enlarged without being reddened to any great extent. The redness is of a rose colour in young children and of crimson or deep claret colour



in older children and adults; the hue almost always varying with the intensity of the disease. The arches of the palate, the velum, uvula and sometimes the posterior wall of the pharynx participate more or less in the inflammatory action. Together with these symptoms, we have fever of a synochal type. Skin hot and dry, pulse somewhat accelerated, full hard and bounding; loss of appetite, bowels constipated, urine scanty, and high coloured. All these symptoms may occur, and increase in severity as the



disease progresses without any diphtheritic exudation; but usually the peculiar exudation may be detected within twenty-four hours after the commencement of the disease. The membrane most frequently makes its appearance on the tonsils. Sometimes it is in very small patches not larger than a pin's head, which increase in size, and finally coalesce, forming one large patch covering the whole tonsil. The membrane increases in circumference and in thickness, until the disease has reached its acme, when it is thrown off either in shreds, or small patches; or



else it comes away entire. The simple type usually reaches its acme in from four to eight days. In some cases the membrane may be thrown off about the fourth day, and the patient become convalescent, while in other cases the exudation extends into the pharynx, and sometimes, and may extend into the mouth, even reaching the incisor teeth, covering the whole roof of the mouth. With the above symptoms the patient is seldom convalescent under eight or ten days. Some writers have described Diphtheria as having nearly the same symptoms as common catarrh with the exception of the exudation.



I consider what they call Diphtheria to be  
nothing more or less than diphtheritic sore-  
throat; which almost always prevails  
when Diphtheria is epidemic. When Diph-  
theria is epidemic, other diseases such as  
erysipelas, scarlatina, rubella &c, may have  
this peculiar exudation; what can be  
more reasonable than to expect common  
catarrh should take on the diphtheritic?  
Physicians, who have had the good luck  
to cure all cases of Diphtheria, and  
have loudly proclaimed it to the  
world, in all probability have been  
fortunate enough not to meet with one  
case of genuine Diphtheria.



In a genuine case of Diphtheria of the simple type at the commencement there is fever of a synochal type, which changes into the adynamic in from 10. to 48 hours. -

The symptoms that characterize this change are great prostration of the whole system; accelerated, weak, thready, and intermittent pulse; laboured respiration, the surface of the body becomes cool, and the skin feels ~~lumpy~~ to the touch. Stools of a diarrhoeic character, nausea and vomiting, epistaxis &c &c. When the disease is about to take a favorable turn, we have a refreshing slumber, a copious diaphoresis, a diminution of the swelling of the glands, an arrest of the membranous deposit, and its



gradual disappearance, a slower pulse and  
returning appetite, and strength.

### The Croupous Type.

In the croupous type we have nearly the  
same symptoms as in the simple form at the  
commencement of the disease, together with others  
of a more alarming character, which show that  
the larynx is invaded. The croupous variety generally  
supervenes those cases, which at the commencement  
assumed a mild type, usually that of follicular  
angina, or in other cases invading the  
anterior and posterior nares, and upper  
portion of the pharynx, exhibiting <sup>the</sup> at outset  
only the symptoms of ordinary catarrh.  
In other cases the disease locates itself



in the larynx at the very outset, and may not make its appearance upon the uvula, or any part of the fauces during the whole course of the complaint. When the larynx is invaded the symptoms in addition to the simple type are. Short, difficult and hoarse respiration, accompanied by a still harsh, rattling, or metallic sound; the cough is also of the same character.

Sometimes this type is ushered in with the common symptoms of croup, and may be mistaken for that disease, although there is usually swelling of the tonsils and fauces. But other symptoms of a constitutional character, which do not accompany croup.



The breathing in Diphtheria is peculiar. Particularly during sleep, and when once heard will never be forgotten although it is very hard to describe. It consists in a short snoring sound, which at times may be heard at a great distance. The eyes protrude, and seem as though they would burst from their sockets, while they become very brilliant. The face assumes a bluish, waxen appearance. The voice becomes impaired; sometimes there is complete aphonia. In all cases of this type the voice is more or less impaired, and in nearly all there is complete loss of voice for a longer or shorter period. In a large number of cases it is utterly impossible



for them to make a loud noise for ten or twelve days. Such cases seldom regain their voice <sup>for</sup> weeks, and sometimes months.

In this form of the disease, when it is about to turn favorably, the membrane is thrown off, when respiration becomes more natural, the skin gradually turns to its normal colour, and there is a gradual return to health. On the other hand, if the disease is to terminate unfavorably, all the symptoms increase in severity. The breathing becomes more and more labored, the patient gasps for breath, thrusts his hands into his mouth and grasps at the neck or clothing to endeavor to gain more air.



the blueness of the skin increases, and the  
horrid <sup>or</sup> ghastliness of countenance until  
death finally closes the scene. In  
the croupous <sup>form</sup> death (or convalescence)  
generally ensues within 12 hours after  
the invasion of the larynx.

### The Malignant Type.

In the malignant type of Diphtheria  
there are scarcely any prodromic symptoms.  
The disease is usually ushered in by severe,  
almost unendurable pain in the head,  
back, limbs, stomach and bowels accom-  
panied by vomiting and purging  
of foetid, bloody and depraaved sec-  
tions. excessive prostration and utter



inability to retain anything upon the stomach. We may have all these symptoms before the appearance of the diphtheritic exudation, though the peculiar factor of the disease is as apparent as at any subsequent time. The factor of Diphtheria is peculiar to this disease alone and the physician who is acquainted with the disease cannot fail to form a correct diagnosis at the very onset by this sign alone. In many cases he is enabled to diagnose the disease on entering the sick room, and frequently even as soon as he enters the house. Very often the factor is of such a putrid



character, that the patient himself complains; and it is unendurable by the physician and attendants, so much so, that the stomach often relieves itself of its contents, almost instantaneously, regardless of position, or circumstances. Sometimes there is enormous swelling of the glands of the throat together with the adjacent tissue; at other times little or none. They are frequently swollen to such an extent as to render it impossible for the patient to get the mouth open far enough for the physician to examine it.



The tongue also is frequently so enlarged as to entirely fill the mouth, and in some instances cannot be retained within the mouth. In cases of this kind, we frequently have a rash, which resembles the rash of scarlatina. Epistaxis is not of unfrequent occurrence, and in the last stages is of a persistent character seeming thereby to hasten the fatal issue. With the above symptoms there may, or may not be a considerable "wash leather deposit." The extent, or amount of the exudation does not depend upon the severity of the disease,



nor does the severity, or fatality, depend  
upon the exudation in all cases.

In many cases that prove fatal the  
soonest there is but little swelling,  
or exudation. In the malignant  
form we have fevers of a typhoid type  
at the very commencement: the pulse  
is weak, thready, intermittent, and  
very much accelerated. not infrequently  
it is as high as 160 beats per minute.  
The peculiar prostration occurs at the very  
onset in nearly all cases, and sometimes  
it is so great as to render the patient as  
helpless as a child in a very few  
hours. In some cases of this type the



disease locates itself in the anterior, and posterior nares, and makes it seem as though the head was one mass of corruption. There is a constant discharge from the mouth and nose of a very offensive character. I remember some cases in which the discharge amounted to a quart in twenty-four hours, and continued for about ten days, or until the swelling had nearly all disappeared, and the patient become convalescent; in others the discharge would suddenly cease about the fifth day, and thereby appeared to hasten the fatal termination. In many cases where there was enormous swelling



of the throat, and a large quantity of false  
membrane; the swelling suddenly sub-  
sided; the membrane was all thrown  
off, and deglutition became nearly normal.  
The patient and all who were not conversant  
with this insidious form of the affection  
thought him to be past all danger,  
suddenly sank to death without a sigh  
or a groan, overwhelmed by the consti-  
tutional poison. Nearly all writers  
upon Diphtheria tell us that death  
is caused by the imperfect assimilation  
of the blood. I think (notwithstanding  
the opinion of others) as far as my observa-  
tion goes, that death seldom takes



place by asphyxia: having seen several hundred cases of the very worst form of the disease, many in which it proved fatal, I never saw but one die from suffocation. Had I time and space, I could relate numerous cases to prove my assertions, but, as I must be brief, I will leave this part of the subject, and proceed to investigate the causes of the disease.

### Causes.

The causes of Diphtheria may be considered as predisposing, and exciting. Among the predisposing causes may be named errors in



diet, over exertion of body or mind,  
dampness, poor ventilation, improper  
attention to cleanliness, exposure,  
and a scrofulous diathesis &c &c.

The exciting cause probably in most  
cases is owing to an epidemic influ-  
ence. Nearly all writers upon the  
subject call it both an epidemic  
and endemic disease. McBratton  
thought it to be contagious, or that  
that the disease could not spread only  
by inoculation. That the disease  
can be produced by inoculation  
there is not a particle of doubt in  
my mind, notwithstanding the



opinion of others. Quite a number of cases have occurred under my own observation. That go to prove this assertion.

One was in a physician, who had a small wound upon his hand and while examining a patient's throat some of the exudation was thrown off, and came in contact with the wound; the result was inflammation of the hand and arm, extending to the shoulder, which immediately produced constitutional symptoms of a severe character. He was obliged to give up all business for some time and came very near losing his hand, and also his life.



This happened to an allopath while  
cauterizing the fauces and on the  
whole I think served him right.  
Another similar case came un-  
der my notice; a man (while working  
some clothes that had been used about  
his children through their sickness in  
this disease), produced a small blister  
on one finger, which probably absorbed  
some of the poison, and immediately  
resulted in inflammation and  
the genuine diphtheritic exudation.  
The membrane formed, and was  
thrown off several times in succession.  
He lost the use of his hand for



some two or three months, and came near losing his life. Many things might be brought to notice to prove the disease contagious, and of its being conveyed by fomites. Although the disease does not seem to be governed by fixed laws of incubation, together with the immunity of a second attack generally secured by diseases considered contagious, yet I believe the disease infectious; and to a greater or less extent contagious.

### Diagnosis.

Diphtheria may be confounded with several diseases by the inexperienced



practitioner. The most common of these are, croup; Scarlatina and gangrenous pharyngitis. In any one of these we do not have the peculiar fetor, nor the presence of the false membrane, which characterizes Diphtheria. The rash in Diphtheria does not occur until about the second week and is not constant, nor does it come off in patches like Scarlatina. As far as I have observed, we have rash in about one tenth of the cases in Diphtheria, while in Scarlatina we always have rash. Pathology.

On account of the small number of post mortem examinations, the pathology



of Diphtheria is not fully established, but in nearly all cases that have been examined after death was found more or less inflammation of the tonsils, fauces, pharynx, larynx anterior and posterior nares, with the pseudo membranous deposit.

This is found in the heart, bronchiae, brain, and in all the mucous surfaces of the body; the chief points of deposit however, are found to be, first the tonsils, then the mucous membrane as it is reflected upon the epiglottis from the base of the tongue, the palate, velum, pharynx &c.



The membrane varies in colour from white, grey, to ash or dark almost black.

The composition of the Membrane.  
I have but little to say upon this point as it is a mooted question. Some writers consider it to be entirely albuminous while others think it is fibrinous and a third class believe it to be of a parasitic origin. I think however from numerous experiments that have been made, that it is albuminous. This is verified by its coagulation on the application



of heat; also, by the albuminous precipitate when treated with nitric acid, &c.

### Prognosis.

In the prognosis of the disease no direct rules can be laid down. In some localities nearly all recover while in others it is just the reverse. In the simple form the prognosis is favorable, but in the croupous, and malignant types it is very unfavorable. The simple form may run into the croupous which will render it unfavorable. In the malignant type death may



occur in a very few hours, but does not usually under a week or ten days. There are some symptoms that may always be regarded as unfavorable. Among these are: the invasion of the larynx and trachea. Exceeding high pulse, coldness, and blueness of the extremities and surfaces. Epistaxis, and dark appearance of the fauces; extensive discharges from the nostrils; vomiting and diarrhoea at an advanced stage of the complaint; intense albuminuria; passage of membrane from the bowels, convulsions, petichia, rigors, &c.



There are certain conditions attending the most unfavorable cases, which after considerable experience will enable the attendant to give a very correct prognosis in the case, even at the commencement, and furthermore will allow the Physician as he scans community to judge pretty correctly who, and what temperaments are most surely to be offered the "fell destroyer". As I have said before death may occur in the putrid type in from six to ten days, or after the severity of the disease has apparently passed, the patient may linger for



weeks and months, and at last  
succumb by reason of nervous  
exhaustion. Sequelae.

The sequelae of this disease may  
be named "legion", for they are  
many. Among the most common  
of these are, rash, rheumatism,  
epistaxis, stranguary, coughs, glandular  
abscesses, otorrhoea, ozæna, erysipelas  
strabismus, impaired vision, dropsy,  
a peculiar nasal twang of voice, affection  
of the spinal marrow, paralysis, etc &c.  
Perhaps the most peculiar, and most  
frequently recurring sequelae is the great  
prostration of the nervous system.



## Treatment of Diphtheria

There can be no better evidence of the intractability of a disease than the recommendation of a thousand "sure cures" or "specifics". Every old woman knows a "sure cure" for rheumatism, and, notwithstanding, this disorder is still one of the most intractable of any that exist in the hands of scientific, and well read physicians. This is precisely the case with Diphtheria. Many articles have been thrust upon the public and profession from time to time as specifics for this disease; but as



yet no true specific has been found  
nor do I believe there ever will.

In the treatment of this disease  
we must first consider the origin  
or seat of the disease. Many allopaths  
and some homoeopaths believe this to  
be a local complaint, and of course  
treat the disease accordingly.

I believe the disease to be constitutional.  
If it is not, how can we account for  
the constitutional disturbance before  
there is any local difficulty? In  
many cases the local complaint does  
not make its appearance until the  
patient is past all cure. There is such



a change in the blood as to render it almost destitute of vitality.

I have seen some cases where at the very commencement, the blood would not coagulate in the test; and for this reason it must be conclusive evidence that it had lost one of its most important ingredients; the fibrin. This fact alone,

in my mind, seems to prove that the membrane cannot be composed of fibrin, and furthermore shows the origin or seat of the disease to be in the blood, consequently the treatment should be constitutional.



I think the experience of all scientific physicians in the treatment of this disease will coincide with these views. Nearly all, both allopaths and homoeopaths, who have had but little experience in the treatment of the disease, direct their whole treatment entirely to the local affection. This accounts for the great mortality when the disease first makes its appearance in any locality. As they become better acquainted with the complaint, this mode of treatment generally falls into disrepute. So far as curative agencies are concerned



topical applications are of no value; the cause remaining unabated the production of the false membrane will continue; additional inflammatory action will certainly supervene and the patient's sufferings will be increased, while the nervous system will be seriously affected by the excitement produced by the operation.

There may be instances, however when suffocation from the presence of the exudation within the fauces is imminent, and in order to gain time for the action of internal medicines, that topical



applications may be recommended.  
Many articles have been recom-  
-mended by the profession, from time  
to time, as the very best for  
this purpose. These are the muriate  
of iron, and glycerine, sulph. acid  
ammonia, sulphate of copper  
or zinc, nitrate of silver, hydro-  
-chloric acid, spirits of turpentine,  
tannin, iodine, Tar, acetac. racinae  
kali chla. &c &c. I have seen  
some of these used, and on the  
whole think the muriate of iron  
the very best. In applying this  
we should have a camel's hair



brush, which should be thoroughly saturated with the tincture and applied to the membrane, immediately the patient coughs, and in most instances the membrane is thrown off. This is merely a palliative, and does not have any curative effect whatever. Everything that could be thought of (by very wise old ladies) has been used as an external application to the throat; but the very best that ever has been used is water, cold or warm; if to allay pain,



use it warm, but if to subdue  
local congestions and inflam-  
-mations and the condition of  
the patient would allow it;  
use it cold. In some cases  
much benefit may be derived  
from the use of alcoholic stim-  
ulus, together with a generous diet;  
while in other cases, it only seems  
to increase the patient's sufferings.  
The internal remedies, that have proved  
most beneficial in this disease, are  
Acon. Bell. Arsenicum, Iodine. Bromine.  
The different preparations of Mercury,  
Caprum. Capsicum, Cantharis, Hellebor.



Crotal, tig. Hepar, sul. Phos. Bry. Lachesis,  
Spongia. Iartor cum. Ipecac. Antimony crud.  
some of the acids &c &c - Some of  
these have been considered specifics;  
for instance, one says he has found  
Bryonia to cure all cases; another  
Lachesis, Bell. and Antimony crud.  
and others. Bromine, and Mercurius  
&c &c. But as far as my observation  
goes, I do not believe that any  
one remedy will cure every case  
of Diphtheria, or any other disease.  
Physicians, who have cured  
all cases of this disease with the  
high attenuations by giving one dose



and allowing it to act twenty-four  
hours, before any change was  
made, probably have not had  
the worst forms of the disease  
to treat; if this were the case,  
they would not under the  
necessity of making but one  
prescription, because, in all,  
human probability, their  
patient would be a fit sub-  
-ject for the undertaker  
before twenty-four <sup>hours</sup> would elapse.  
The remedies that are most  
serviceable in the first stage  
of the complaint, are, Acorn.



Bell. Capsicum. Kali, chlor.  
Mure, liq. od. In the latter  
stage. Bell. Mure, liq. od., Nitric, ac.  
Mour, ac. Sulph. ac. Stibium. Rhu-  
tox, Phos. Arsenicum. China.  
Carbo, veg. etc. In the  
croupous variety Aconite,  
Hepar, sul. Podine Kali, bichlor.  
and Spongia, tart.

I have seen many very  
bad cases of the croupous  
type, which were entirely  
controlled by Aconite Hepar,  
sul. and Spongia; indeed  
I never <sup>saw</sup> a case of this type



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Carbo, veg. etc. In the

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Hepar, sul. Iodine Kali, bichlor.

and Spongia, test.

I have seen many very

bad cases of the croupous

type, which were entirely

controlled by Aconite Hepar,

sul. and Spongia; indeed

I never <sup>saw</sup> a case of this type



that proved fatal, although  
I have seen where the membrane  
formed in the larynx,  
trachea, and bronchial  
tubes, and was thrown off  
in a complete mould  
of the whole air passages;  
therefore I think nearly  
all cases of this type may  
recover if they have proper  
treatment. There is one  
direct rule [if lived up to]  
that will cure all cases  
that are curable; and  
this is to prescribe at



all times and under  
all circumstances according  
to the great, and only  
Law of cure  
~~Similibus~~ Similibus Durantur  
I believe every disease  
that ever was, or will  
can be cured, must be in  
accordance with this law, and  
I believe the day will surely  
come, when all physicians  
will treat diseases according  
to homoeopathic principles  
"Only swift around a few hours of time,  
and bring the welcome day"

Philadelphia, February 1865.